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EXAMINER	
FLANDERS, ANDREW C	
ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/286,575	PACKARD, THOMAS N.	
	Examiner	Art Unit	
	Andrew C Flanders	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 1999*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 April 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date: _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

2. On page 18, line 2 the specification states "negative input terminal 463 of comparator 401, however, comparator 401 doesn't have a negative input terminal labeled 463. The line should apparently read "negative input terminal 463 of comparator 411". Comparator 411 contains a negative input terminal 463 and is apparently being discussed in this section.

3. On page 18, line 7, part 404 is described as a "time delay unit" and a "filter".

4. On page 18, line 19, "Rectifier 406" should apparently read "rectifier 416".

5. On page 24, lines 13 and 14, part 525 is referred to as an "output voltage divider integrated circuit" while on page 25 line 2, part 525 is referred to as a "ratio detector".

Appropriate correction is required.

Drawings

6. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because section 1.84 (l) of the Patent Rules state "All drawings must be made by a process which will give them satisfactory reproduction characteristics. Every line, number, and letter must be durable, clean, black (except for color drawings), sufficiently dense and dark, and uniformly thick and well-defined." Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected

drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to the examiner what is meant by "and actuable for enabling one or both of said channels or said averaging means having higher signal level in comparison to the average signal to transmit the signal carried thereby." For the purpose of expediting examination, it is understood by the examiner to mean the signal with the lowest noise will be transmitted.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 – 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Burns (US Patent 4,155,041).

11. Regarding Claim 1, Burns discloses a system for enabling only the transmission of a carrier signal having the lowest instantaneous noise transient level in the

transmitted portion of identical electrical carrier signals of substantially equal signal strength having differing noise transients and transmitted synchronously and simultaneously over separate channels, the existence of such noise transients being reflected by differences in the instantaneous magnitudes between said carrier signals, said system comprising:

comparing means connectable to said channels for continuously comparing the total instantaneous signal-plus-noise magnitude of said carrier signals, and actuable in response to the existence of a noise transient in any of said carrier signals for enabling only the transmission of the carrier signal having the lowest instantaneous noise transient level (col. 22 lines 49 – 64).

12. Regarding Claim 2, in addition to the elements stated above regarding claim 1, Burns further discloses wherein said comparing means comprises:

first control means connectable to said channels for generating switching signals indicative of the channel carrying the carrier signal having the lowest instantaneous transient noise level; and

enabling means connected to said first control means, and actuable in response to said switching signals to enable only the channel carrying the signal having the lowest transient noise level to transmit the carrier signal (col. 22 lines 65 – 68 and col. 23 lines 1- 7).

13. Regarding Claim 3, in addition to the elements stated above regarding claim 2, Burns further discloses low frequency mixing means connectable between said

channels for mixing equally into all of said channels all signal components having frequencies below a predetermined frequency level (col. 23 lines 10 – 13).

14. Regarding Claim 4, in addition to the elements stated above regarding claim 1, Burns further discloses a means for equalizing the components of said signals having frequencies below a predetermined low frequency, and

wherein said comparing means compares only noise transients in said carrier signals above said predetermined low frequency (col. 24 lines 46 – 50).

15. Regarding Claim 5, in addition to the elements stated above regarding claim 3, Burns further discloses equalizing means comprises a low frequency mixer connectable between said channels (col. 24 lines 52 and 53) (i.e. low frequency mixing means preceding said comparing means and connected between said channels), comparing means compares only noise transients in said carrier signals (col. 24 lines 48 and 19) (i.e. said comparing means being connected between said channels), compares the noise transients in the carrier signals in the channels and selects that channel having the lower noise components for transmission (col. 4 lines 12 – 15) (i.e. enabling means for enabling at least one of said channels in response to the comparing means, to carry the signals having lower transient noise level than said average signal and to transmit the signals carried thereby), and a switching arrangement in the circuitry of FIG. 2 that provides that the higher frequency components of input signals are transmitted over the channel having the lower instantaneous noise level; the lower frequency components of the input signal are effectively not switched since the low frequency mixer has equalized the low frequency components prior to the switching function (col. 5 lines 44 – 51) (i.e.

wherein signal from the low frequency mixer is selected to compensate for the low frequency attenuation and is combined with the signal following the switching means preserving the frequency characteristic of the input signal without noise transients thereby).

16. Regarding Claim 6, in addition to the elements stated above regarding claim 1, Burns further discloses a summing means connectable to said channels for receiving and combining the respective carrier signals;

and wherein said comparing means comprises means connectable to said channels and to said summing means, and actuable for enabling the one of said channels and said summing means having the lowest transient noise level to transmit the signal carried thereby, and for disabling the other of said channels and said summing means from transmitting the signals carried thereby (col. 24 lines 56 – 68).

17. Regarding Claim 7, in addition to the elements stated above regarding claim 1, and based on the assumptions made within the 35 U.S.C. 112 rejection, Burns further discloses a summing means connectable to said channels for receiving and combining the respective carrier signals;

and wherein said comparing means comprises means connectable to said channels and to said summing means, and actuable for enabling the one of said channels and said summing means having the lowest transient noise level to transmit the signal carried thereby, and for disabling the other of said channels and said summing means from transmitting the signals carried thereby (col. 24 lines 56 – 68).

18. Regarding Claim 8, in addition to the elements stated above regarding claim 1, Burns further discloses summing means connectable to said channels for receiving the respective carrier signals and for generating a combined signal;

and wherein said comparing means is further connected to said summing means, said comparing means enabling only the one of the channels carrying the signal having the lowest transient noise level and of said summing means, carrying the signal having the lowest transient noise level to transmit the signal carried thereby (col. 25 lines 28 – 39).

19. Regarding Claim 9, in addition to the elements stated above regarding claim 1, Burns further discloses The invention according to claim 1 wherein a pair of said channels each include amplifying means for amplifying the respective carrier signals on the channels, and wherein said system further includes balance control means for balancing the respective carrier signal voltages on the pair of channels, said balance control means comprising (col. 27 lines 33 – 39) and gain adjusting means connected to said imbalance sensor means and to at least one of said amplifiers to adjust the respective gains of said at least one amplifiers in response to the reception of said imbalance signals (col. 27 lines 46 – 50).

20. Regarding Claim 10, in addition to the elements stated above regarding claim 1, Burns further discloses wherein the system includes first and second channels for transmitting said identical electrical carrier signals; and

said second control means comprises:

first rectifying means connectable to said first channel for generating first rectified signals of one polarity corresponding to signals transmitted by said first channel; and

second rectifying means connectable to said second channel for generating second rectified signals having the same polarity as said first rectified signals, and corresponding to signals transmitted by said second channel;

third rectifying means connected to said summing means for generating third rectified signals opposite in polarity to said first and second rectified signals, and corresponding to the combined signal generated by said summing means;

first polarity determining means for combining said first and third rectified signals and for determining the polarity of the combined first and third rectified signals, and for generating a first switching signal indicative of the one of said first channel and of said summing means carrying the signal having the lowest transient noise level; and

second polarity determining means for combining said second and third rectified signals and for determining the polarity of the combined second and third signals, and for generating a second switching signal indicative of the one of said second channel and of said summing means carrying the signal having the lowest transient noise level (col. 25 lines 65 – 68 and col. 26 lines 1 – 28).

21. Regarding Claim 11, in addition to the elements stated above regarding claim 10, Burns further discloses wherein said first and second polarity determining means each further include threshold means for establishing a threshold value and for preventing the generation of said first or said second switching signals when the absolute magnitude of the difference between said respective combined rectified signals is less than said threshold value (col. 26 lines 44 –51).

22. Regarding Claim 12, in addition to the elements stated above regarding claim 11, Burns further discloses establishing a threshold value corresponding to a predetermined difference in noise level between the respective channels and for preventing the generation of said switching signals when the absolute magnitude of the difference between the combined rectified signals is less than said threshold value (col. 23 lines 46 – 52) (i.e. the simultaneous generation of first and second switching signals is permitted to occur only if the level of the signals of the first and second channels are alike within a predetermined ratio).

23. Regarding Claim 13, in addition to the elements stated above regarding claim 1, Burns further discloses wherein said comparing means comprises:

first control means connectable to said channels for generating switching signals indicative of the channel carrying the carrier signal having the lowest transient noise level; and

first enabling means connected to said first control means, and actuable in response to said switching signal to enable only the one channel carrying the signal having the lowest transient noise level to transmit the carrier signal; and

wherein said system further comprises:

blanking means connectable to said one channel for blanking a predetermined portion of the carrier signal transmitted by said one channel;

second enabling means electrically connected to said blanking means and actuable for selectively enabling said blanking means to perform the blanking function;

second control means electrically connected to said second enabling means and to said one channel for detecting noise transients in the carrier signal transmitted by said one channel, and for generating actuating signals to actuate said second enabling means in response to the detection of a noise transient (col. 28 lines 19 – 44).

24. Regarding Claim 14, in addition to the elements stated above regarding claim 1, Burns further discloses wherein said comparing means comprises:

first control means connectable to said channels for generating switching signals indicative of the presence of a noise transient having an amplitude above a predetermined value in the carrier signal; and

first enabling means connected to said first control means, and actuable in response to said switching signal to enable only the one channel carrying the signal having the lowest transient noise level to transmit the carrier signal; and

wherein said system further comprises:

blanking means connected to said channels for blanking a predetermined portion of the carrier signal transmitted by said one channel;

second enabling means electrically connected to said blanking means and actuable for selectively enabling said blanking means to perform the blanking function;

second control means electrically connectable to said channels for detecting noise transients in the carrier signal transmitted by said one channel, and for generating blanking control signals in response to the detection of a noise transient;

third control means electrically connected to said second enabling means and actuable for actuating said second enabling means (col. 28 lines 45 – 68 and col. 29 lines 1 – 3).

25. Regarding Claim 15, Burns discloses A system for enabling only the transmission of a carrier signal having the lowest instantaneous noise transient level in the transmitted portion of identical electrical carrier signals of substantially equal signal strength having differing noise transients and transmitted synchronously and simultaneously over separate channels, the existence of such noise transients being reflected by differences in the instantaneous magnitudes between said carrier signals (col. 22 lines 49 – 58), wherein the system includes first and second channels for transmitting said identical electrical carrier signals first rectifying means connectable to said first channel for generating first rectified signals of one polarity corresponding to signals transmitted by said first channel;

second rectifying means connectable to said second channel for generating second rectified signals opposite in polarity to said first rectified signals, and corresponding to signals transmitted by said second channel; and

polarity determining means connected to said first and second rectifying means, for combining said first and second rectified signals and for determining the polarity of the combined rectified signals, and for generating said switching signals according to said polarity (col. 23 lines 14 – 32), enabling means connected to said first control means, and actuable in response to said switching signals to enable only the channel carrying the signal having the lowest transient noise level to transmit the carrier signal

(col. 23 lines 3 –7), and polarity determining means connected to said first and second rectifying means, for combining said first and second rectified signals and for determining the polarity of the combined rectified signals, and for generating said switching signals according to said polarity (col. 23 lines 27 – 32) (i.e. second polarity determining means connected to said first and second channels for determining if the input signals are of the opposite polarity, to disable the switching signals there upon).

26. Regarding Claim 16, Burns discloses first and second high pass filter means connected to first and second rectifying means (col. 23 lines 39 - 41) (i.e. first and second filter means connected to said channel for transmitting different bands of frequencies therethrough), blanking means connected to said channels for blanking a predetermined portion of the carrier signal transmitted by said one channel (col. 28 lines 57 – 59) (i.e. fist and second blanking means connected to said channel for respectively blanking first and second bands of frequencies in the input signal transmitted by said channel), first enabling means (col. 28 line 47), second enabling means electrically connected to said blanking means and actuable for selectively enabling said blanking means to perform the blanking function (col. 28 lines 57 – 59) (i.e. first and second enabling means electrically connected respectively to said first and second blanking means and actuable for selectively enabling said first and second blanking means to perform the blanking functions) and first control means (col. 28 line 46) and second control means electrically connectable to said channels for detecting noise transients in the carrier signal transmitted by said one channel, and for generating blanking control signals in response to the detection of a noise transient (i.e. first and second control

means electrically connectable to said filters for detecting noise transients in the input signal transmitted by said channel and for generating blanking control signals in response to the detection of a noise transient).

27. Regarding Claim 17, in addition to the elements stated above regarding claim 16, Burns further discloses the following: A comparator that has one input terminal connected to the output terminal of amplifier, and another input terminal connected to a variable resistor or potentiometer which is connected in a circuit including a voltage source. Potentiometer serves as a sensitivity adjustment for the triggering of comparator. When the input signal at terminal exceeds the voltage applied to input terminal of comparator as established by the setting of potentiometer, comparator generates a blanking voltage signal to a blanking signal control means in the form of a monostable multivibrator connected to the output terminal of comparator. Multivibrator is of the type which, once triggered, generates an output voltage signal for a predetermined period of time. This multivibrator is selected so that this predetermined period of time is the desired blanking time. (col. 15 lines 38 – 56) (i.e. wherein the blanking levels of said first and second blanking means are in predetermined relationship with said levels in first and second bands of frequencies during a predetermined time interval prior to blankings).

28. Regarding Claim 18, Burns discloses first and second high pass filter means col. 23 lines 39 - 41) (i.e. said first and second filter means transmit relatively lower and higher bands of frequencies, respectively), blanking means connected to said channels for blanking a predetermined portion of the carrier signal transmitted by said one

channel (col. 28 lines 57 – 59) (said first and second blanking means are connected to said first and second filter means, respectively), means for equalizing the components of said signals having frequencies below a predetermined low frequency (col. 24 lines 45 and 46), means for filtering from said carrier signals those signal components having frequencies above a predetermined value (col. 28 lines 14 – 17) (i.e. blanking the lower frequency and higher frequency bands in independent time portions of the input signal transmitted by said signals) and second disabling means electrically connected to said blanking signal control means for disabling said blanking signal control means (col. 30 lines 15 – 17) (i.e. disabling means electrically connected to and preventing operation of said first enabling means when said second enabling means has not been enabled).

29. Regarding Claim 19, in addition to the elements stated above regarding claim 18, Burns further discloses second disabling means electrically connected to said blanking signal control means for disabling said blanking signal control means from generating one of said switching signals for a predetermined length of time, in response to the commencement of said blanking period (col. 30 lines 15 – 20) (i.e. wherein said second enabling means provides a predetermined time interval during which said first blanking means can be enabled by first enabling means).

30. Regarding Claim 20, in addition to the elements stated above regarding claim 16, Burns further discloses means for filtering from said carrier signals those signal components having frequencies above a predetermined value (col. 28 lines 14 – 17) (i.e. low pass filter means for transmitting said input signal exclusive of the high frequency transient noise components of said input), peak voltage generation means for

generating and transmitting a second signal reflective of the average peak voltage of said first signal over a predetermined time period (col. 31 lines 38 – 41) (i.e. peak voltage generating means electrically connected to low pass filter means for transmitting a first signal reflective of the instantaneous voltage from the low pass filter) differentiating means electrically connected to said instantaneous voltage generation means and to said peak voltage generation means, for generating a noise indicator signal when said first signal exceeds said second signal to indicate the occurrence of a noise transient (col. 29 lines 45 – 50) (i.e. comparing means electrically connected to said first signal and to the input of the second control means constituting a second signal; for generating a noise indicator signal when the first signal exceeds in amplitude the second signal), means for adjusting the gains of the two amplifiers so that their outputs in response to input signals without noise are substantially equal in magnitude and phase (col. 4 lines 52 – 54) (i.e. gain adjustable means for adjusting the gain of the peak voltage means with respect to the input of said second control means by a predetermined amount), second control means electrically connected to said second enabling means (col. 28 lines 34 and 35) and second enabling means electrically connected to said blanking means and actuable for selectively enabling said blanking means to perform the blanking function (col. 28 lines 57 – 59) (i.e. means for connecting said second control means to said second enabling means, for actuating said second enabling means to produce second blanking signal).

31. Regarding Claim 21, in addition to the elements stated above regarding claim 20, Burns further discloses second high pass filter means connected to second rectifying

means (col. 23 lines 40 and 41), second rectifying means connectable to said first channel (col. 23 lines 61 and 62) and second control means connectable to said channels (col. 25 line 52) (i.e. where the input of the second control means is connected to the output of the second filter)

32. Regarding Claim 22, in addition to the elements stated above regarding claim 20 Burns further discloses an amplifier that has a second input terminal to which is applied a variable input voltage according to the setting of a variable resistor (i.e. gain adjustable means) across which is impressed a voltage from a voltage source (i.e. DC bias voltage) and the output of amplifier is proportionate to the difference between the input voltage at terminal and the adjusted input voltage, as determined by the setting of a variable resistor (col. 12 lines 28 – 36) (i.e. gain adjustable means further includes a predetermined combinable dc bias voltage such that the gain adjustable signal is at least as great as that of the dc bias voltage)

33. Regarding Claim 23, in addition to the elements stated above regarding claim 20, Burns further discloses disabling means electrically connected between said blanking signal control means for disabling said peak voltage generation means from generating and transmitting said second signal for said blanking period (col. 30 lines 15 – 18), first enabling means connected to said first control means, and actuable in response to said first switching signals to enable only the channel having the lowest transient noise level to transmit the carrier signal (col. 25 lines 9 – 14), disabling means electrically connected between said blanking signal control (col. 30 lines 5 and 6) (i.e. disabling means for preventing the transmission of signal therethrough; and means for connecting

said disabling means to said first enabling means, the actuation of said first enabling means furthermore actuating said disabling means).

34. Regarding Claim 24, in addition to the elements stated above regarding claim 23, Burns further discloses enabling means for actuating said enabling means for said blanking period in response to the occurrence of said switching signal (col. 29 line 68 and col. 30 lines 1 and 2) (i.e. wherein said disabling means is actuated for a predetermined time interval initiated by a triggering signal from the first enabling means).

35. Regarding Claim 25, in addition to the elements stated above regarding claim 23, Burns further discloses that as the detected transient signal is recognized as a normal transient whose retention is desired, a counter prevents the latter detector from responding to any further blanking commands (col. 20 lines 49 – 48) (i.e. signal retention means such that the voltage stored thereby is not significantly attenuated during the time interval that said disabling means is enabled).

36. Claims 26 - 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Packard (US Patent 4,322,641).

37. Regarding Claim 26, Packard discloses, first means for producing a first signal proportional to the peak amplitude

of the rate of change with respect to time of the total input signal;

second means for producing a second signal proportional to the instantaneous amplitude of the total input signal;

selection means for selecting an operating frequency band for use with the

second means, the second means producing the second signal proportional to the instantaneous amplitude of the portion of the total input signal falling within the selected frequency band;

control and comparison means for comparing the first and second signals to obtain an indication of the noise in the total input signal relative to the amplitude and frequency characteristics of the total input signal, and for generating a control signal according to said indication; and

active filtering means having a cut-off frequency selected in response to said control signal, said active filtering means filtering from the total input signal components of the total input signal according to the selected cut-off frequency to suppress noise in the total input signal (col. 11 lines 50 and col. 12 lines 1 – 9)

38. Regarding Claim 27, in addition to the elements stated above regarding claim 26 Packard further discloses wherein the first means comprises differentiating means shunted by capacitive and resistive means for producing a signal proportional to the peak amplitude of the time rate of change of the total input signal (col. 12 lines 9 – 13).

39. Regarding Claim 28, in addition to the elements stated above regarding claim 26 Packard further discloses wherein the selection means for selecting an operating frequency band comprises a band pass filter (col. 12 lines 14 – 16).

40. Regarding Claim 32, in addition to the elements stated above regarding claim 26, Packard further discloses generating a control signal and active filtering means having a cut-off frequency selected in response to said control signal (col. 12 lines 1 – 4) (i.e.

metering means electrically connected to said control signal, said control signal also connected to said filtering means for suppressing noise from said input signal, wherein said metering means is responsive to said cut-off frequency)

Claim Rejections - 35 USC § 103

41. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

42. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Packard (U.S. Patent4,322,641) in view of Burns (U.S. Patent 4,155,041).

43. Regarding Claim 29, in addition to the elements stated above regarding claim 26, Burns discloses a monostable multivibrator that functions to provide a delay of a predetermined time period (col. 19 lines 20 and 21) (i.e. means establishing a predetermined time delay interval) and that as the detected transient signal is recognized as a normal transient whose retention is desired, a counter delivers a signal to prevent the latter detector from responding to any further blanking commands (col. 20 lines 49 – 48) (i.e. means for making said control signal unresponsive to noise transients occurring in said channel having durations less than said interval). One of ordinary skill in the art at the time of the invention would have been motivated to combine Packard's noise reduction system with Burn's monostable multivibrator in order to avoid blanking out transients of useful info.

44. Regarding Claim 30, in addition to the elements above regarding claim 29, Burns further discloses a predetermined time period such as five milliseconds (col. 19 lines 21 and 22) (i.e. wherein the duration of the time delay interval is at least 1 millisecond).

45. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Packard (U.S. Patent4,322,641) in view of Shibuya (U.S. Patent 4,095,191).

46. Regarding Claim 31, in addition to the elements stated above regarding claim 26, Shibuya discloses a circuit for combining a DC voltage with a control signal (col. 2 lines 25 and 26) (i.e. means for combining predetermined dc voltage with said control signal such that the control signal attains a voltage magnitude at least that of the dc voltage). One of ordinary skill in the art at the time of the invention would have been motivated to combine Packard's noise reduction system with Shibuya's circuit in order to make sure the control signal that needed to be passed is at a level that can easily be recognized.

47. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Packard (U.S. Patent4,322,641) in view of Driscoll (IEEE Paper 0-7803-3309-8/96).

48. Regarding Claim 33, Driscoll discloses cascading two single pole filters (2nd paragraph) (i.e. wherein said filtering means comprises at least one cascaded single pole filter). One of ordinary skill in the art at the time of the invention would have been motivated to use Packard's noise reduction system with Driscoll's filter in order to reduce cost and maintain similar characteristics as multiple pole filters. A single pole filter requires fewer elements and therefore is less costly. Driscoll discloses that two cascaded single pole filters provide the same group delay as a two-pole filter (2nd paragraph).

Double Patenting

49. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

50. Claim 1 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection. Burns claims transmission of the signals having the lowest instantaneous noise transient level while applicant claims transmission of the signals having a lower instantaneous noise transient level than an average signal. Regardless of what each signal is compared to, the signal with the lower noise transient level will always be transmitted in both claims, therefore the claims are understood to be identical and are rejected on the grounds of statutory double patenting.

51. Claim 2 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection. Burns claims carrying the signals having the lowest instantaneous noise transient level while applicant claims carrying the signals having a lower instantaneous noise transient level than an average signal. Regardless of what each signal is compared to, the signal with the lower noise transient level will always be carried in both claims, therefore the claims

are understood to be identical and are rejected on the grounds of statutory double patenting.

52. Claim 3 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 3 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection.

53. Claim 4 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 10 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection.

54. Claim 6 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 12 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection. Burns claims enabling one channel having the lowest instantaneous noise transient level while applicant claims enabling at least one channel having a lower instantaneous noise transient level than an average signal. Regardless of what each signal is compared to, the signal with the lower noise transient level will always be transmitted in both claims, therefore the claims are understood to be identical and are rejected on the grounds of statutory double patenting.

55. Claim 7 rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 8 of prior U.S. Patent No. 4,155,041 This is a double patenting rejection.

56. Claim 8 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 14 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection. Burns claims enabling the channel having the lowest instantaneous noise transient level while applicant claims enabling the channel having a lower instantaneous noise transient level than an average signal. Regardless of what each signal is compared to, the signal with the lower noise transient level will always be transmitted in both claims, therefore the

claims are understood to be identical and are rejected on the grounds of statutory double patenting.

57. Claim 10 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 16 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection.

58. Claim 11 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 17 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection.

59. Claim 13 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 23 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection.

60. Claim 14 rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 24 of prior U.S. Patent No. 4,155,041. This is a double patenting rejection.

61. Claim 26 rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 4,322,641. This is a double patenting rejection.

62. Claim 27 rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of prior U.S. Patent No. 4,322,641. This is a double patenting rejection.

63. Claim 28 rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 3 of prior U.S. Patent No. 4,322,641. This is a double patenting rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C Flanders whose telephone number is (703) 305-0381. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forrester Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

acf

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